

Listing of Claims

1. (Original) A system (10) for avoiding poisoning effects during anesthesia, comprising:

determining means (60, 70) for determining the quantitative amount of an anesthetic agent degradation product in an anesthetic gas mixture, and

alarm means for providing an alarm when the determined quantitative amount of the anesthetic agent degradation product in the anesthetic gas mixture exceeds a given threshold.
2. (Original) The system (10) of claim 1, wherein the determining means (60, 70) comprises:

measuring means (60) for measuring a Raman spectrum of the gas mixture, and

a processing unit (70) for determining the quantitative amount of the anesthetic agent degradation product in the gas mixture by comparing the measured Raman spectrum with a reference spectrum of the anesthetic agent degradation product.
3. (Previously Amended) The system (10) of claim 1, wherein the anesthetic agent degradation product is carbon monoxide CO.
4. (Presently Amended) The system (10) according to claim 1, wherein the anesthetic agent degradation product is trifluoromethane, CHF₃, ~~preferably~~ as an indicator for the presence of CO in the gas mixture.
5. (Presently Amended) A system (10) for avoiding CO poisoning effects during anesthesia caused by anesthetic agent degradation products in a gas mixture such as a respiration gas, comprising:

means (60) for measuring a Raman spectrum of the gas mixture,

a processing unit (70) for determining the quantitative amount of at least one of the anesthetic agent degradation products, ~~preferably CHF₃ and/or CO~~, in the gas mixture by comparing the measured Raman spectrum with a reference spectrum of the at least one anesthetic agent degradation products, and

means for providing an alarm when the determined quantitative amount of the anesthetic agent degradation product in the gas mixture exceeds a given threshold.
6. (Presently Amended) A method for avoiding poisoning effects during anesthesia, comprising the steps of:

(a) determining the quantitative amount of an anesthetic agent degradation product, ~~preferably carbon monoxide CO and/or trifluoromethane CHF₃~~, in an anesthetic gas mixture, and

- (b) providing an alarm when the determined quantitative amount of the anesthetic agent degradation product in the anesthetic gas mixture exceeds a given threshold.
7. (Original) The method of claim 6, wherein the step (b) comprises the steps of:
- (c) measuring a Raman spectrum of the gas mixture, and
 - (d) determining the quantitative amount of the anesthetic agent degradation product in the gas mixture by comparing the measured Raman spectrum with a reference spectrum of the anesthetic agent degradation product.
8. (Original) Use of a Raman spectrometer (60, 70) for determining the quantitative amount of an anesthetic agent degradation product in a gas mixture.
9. (New) A method for avoiding poisoning effects during anesthesia accordingly to claim 6 wherein the anesthetic agent degradation product comprises at least one of carbon monoxide and trifluoromethane.
10. (New) A system according to claim 5 wherein the anesthetic agent degradation product comprises at least one of carbon monoxide and trifluoromethane